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10/568,234	03/08/2007	Tae Ik Song	05-496-C	9593

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EXAMINER	
PATEL, MAHENDRA R	

ART UNIT	PAPER NUMBER
4172	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,234	SONG, TAE IK	
	Examiner	Art Unit	
	MAHENDRA R. PATEL	4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03/08/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02/14/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to application filed on 02/14/2007.

Claims 1-2 are pending.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 1-2** are provisionally rejected on the ground of nonstatutory double patenting over claim1 of pending Application No. 10/569041 (Method of controlling data rate for a forward data service in a cdma 2000-1x system by Lee et al.). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced pending application and would be covered by any patent granted on that pending application since the referenced pending application and the instant application are claiming common subject matter:

a) Method of Controlling power in a CDMA 2000 System (10/568234), and

b) Method of controlling data rate for a forward data service in a cdma 2000-1x system (10/569041).

In both applications, the titles are different. Although the conflicting claims are not identical, they are not patentably distinct from each other because both systems:

Use power control techniques to control data rate.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invitation to implement the power control to control data rate.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other pending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. **Claims 1-2 are** rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 20030133415 A1), in view of Peng et al. (US 20040203782 A1).

Regarding claim 1, Kim teaches a method of controlling power in a CDMA system, said method comprising the steps of:

Selecting a service type to be provided; if the selected service type is a data service, implementing a reverse-link power control algorithm for the data service ([0011] (e.g. high-rate data transmission as well as voice service is carried out on the reverse link));

If the selected service type is a voice service, implementing a reverse-link power control algorithm for a CDMA system ([0030] (e.g. the embodiments described pertain to control of data call assignment on a reverse-supplemental channel (R-SCH). A voice call that is assigned a priority and high-rate data transmission is provided on the reverse link within a threshold below a maximum load for which the voice call can be connected));

Kim does not expressly teach determining a target Energy per Bit/Noise value.

However, the preceding limitation is known in the art of communications. In the same field of endeavor, Peng teaches a method for determining a target Energy per Bit/Noise (Eb/Nt) value in a CDMA system ([0014] (e.g. A criterion is required for determining the reception quality of a reverse link. In fact, the frame error rate (FER) and Eb/Nt of a reverse link both indicate the reception quality of the reverse links of a base station to some extent. In principal, the lower the reverse link FER, the better the reception quality of the reverse link; the higher the reverse link Eb/Nt, the better the reverse link reception quality of the reverse link)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invitation to implement the method of Peng within the method of Kim to allow CDMA and CDMA-2000-1X schemes for forward transmitting power control. The new method reduces manufacturing cost (i.e. 2 in 1 method) in addition to producing versatile system.

Regarding claim 2, Kim in view of Peng teaches all the limitations above. Kim further teaches the method as claimed in claim 1, wherein said reverse-link power control algorithm for a data service ([0006] (e.g. CDMA2000 is one of the data service systems, It uses the Fundamental Channel (FCH), a Pilot Channel (PCH), and a Supplemental Channel (SCH)) comprise the steps of:

At a Base station Transceiver Subsystem (BTS), checking the statuses of reception frames through a fundamental channel and a supplemental channel ([0017] (e.g. A Base Station (BS) compares a total load of a sector in which a Mobile Station (MS) is located to a predetermined data threshold, upon request of the MS for a reverse-supplemental channel (R-SCH). If the total load of the sector (i.e. statuses of reception frames) is less than the data

threshold, the BS determines a maximum data rate available to the R-SCH that is less than the data threshold and notifies the MS of the determined maximum data rate));

Determining a target Eb/Nt value for each of the fundamental and supplemental channels (Peng [0023] (e.g. the average Eb/Nt is calculated in a detection period of 20 ms (1 frame=16PCG=20 ms); via a message));

Transmitting the determined target Eb/Nt value from a Base Station Controller (BSC) to the BTS (Peng [0023] (e.g. based on the comparison of average Eb/Nt in the detection period reported from base stations, the BSC determines which base station is the best in receiving forward power control bit data and defines it as BTS(x)));

At the BTS, checking a current Eb/Nt value for each of the fundamental and supplemental channels between power control groups (Peng [0023] (e.g. by comparing the transmitting power of other base stations with that of BTS(x), the BSC put those base stations into the power synchronization));

Comparing the current Eb/NT value with the transmitted target Eb/Nt value groups (Peng [0023] (e.g. By comparing the transmitting power of other base stations with that of BTS));

Determining power control bits for the fundamental and supplemental channels (Peng [0023] (e.g. by comparing the transmitting power of other base stations with that of BTS(x), the BSC put those base stations into the power synchronization queue if the deviations of transmitting power of the base stations exceed a predetermined threshold));

And at the BTS, transmitting the determined power control bits to a mobile unit in turn (Peng [0023] (e.g. The transmitting powers of the base stations in the queue are then adjusted to be equal to that of BTS(x). The procedure will be performed repeatedly till the mobile station withdraws from soft handoff completely));

Conclusion

3. The prior arts are made of records and not relied upon is considered pertinent to applicant's disclosure.

    1. Lee et al. (US 20020082013 A1) - Power control apparatus and method in a wireless communication system using scheduled packet data service channel.
    2. Love et al. (US 6058107 A) - Method for updating forward power control in a communication system.
    3. Black et al. (US 6208873 B1) - Method and apparatus for transmitting reverse link power control signals based on the probability that the power control command is in error.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAHENDRA R. PATEL whose telephone number is 571-270-7499. The examiner can normally be reached on 8:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis West can be reached on 571-272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MAHENDRA R PATEL/
Examiner, Art Unit 4172
/ Jean A Gelin/
Primary Examiner, Art Unit 2617
Tuesday, December 30, 2008